



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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May 10, 2007

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Naval Facilities Engineering Command Atlantic
Code EV21
6506 Hampton Boulevard
Norfolk, Virginia 23508-1278

SUBJECT: Draft Supplemental Environmental Impact Statement for the Introduction of F/A-18 E/F (Super Hornet) Aircraft to the East Coast of the United States (Construction and Operation of an Outlying Landing Field)
CEQ Number 20070063

Dear Ms. Blend:

The U.S. Environmental Protection Agency (EPA) has reviewed the referenced Draft Supplemental Environmental Impact Statement (SEIS) in accordance with its responsibilities under Section 309 of the Clean Air Act and Section 102(2)(C) of the National Environmental Policy Act (NEPA). The U.S. Department of the Navy (Navy) proposes to construct and operate an Outlying Landing Field (OLF) to support the Field Carrier Landing Practice (FCLP) operations of F/A-18 E/F (Super Hornet) squadrons stationed at Naval Air Station (NAS) Oceana, Virginia, and Marine Corps Air Station (MCAS) Cherry Point, North Carolina.

The Navy completed and approved the original EIS for this proposed action in 2003. The Record of Decision documented the Navy's choice to homebase eight Super Hornet squadrons and the Fleet Replacement Squadron at NAS Oceana, two squadrons at MCAS Cherry Point, and to construct an OLF between the two air stations in Washington County, North Carolina (Site C). In January 2004, the Navy's decision to construct and operate an OLF at Site C was challenged under the Administrative Procedure Act. The U.S. District Court for the Eastern District of North Carolina found in favor of the plaintiffs in February 2005. The U.S. Court of Appeals for the Fourth Circuit affirmed the District Court decision in September 2005 with some modifications. The Draft SEIS was prepared to address those areas identified by the courts that require additional analysis.

Based on the Draft SEIS, the Navy proposes to acquire approximately 30,000 acres for the OLF. Approximately 2,000 acres would be used as a core area, which includes an 8,000 foot runway, air traffic control tower, other support buildings, and land management around the airfield for flight safety. Beyond the airfield, the remaining acreage would be used as a buffer area to ensure land use compatible with the OLF. The core area will be acquired through fee simple purchase, and the remaining buffer area will be acquired by either fee simple purchase or restrictive use easements, depending on the alternative and the extent of incompatible land uses identified within the buffer area. Construction is predicted to occur over a two-year period. None of the Super Hornet squadrons or personnel would be stationed at the OLF. The facility would primarily be operated and maintained by contract personnel. The same five alternative OLF sites in eastern North Carolina that the Navy evaluated in the original EIS are considered in the Draft SEIS, in addition to the no action alternative. As in the original EIS, the Navy identified OLF Site C as its preferred alternative.

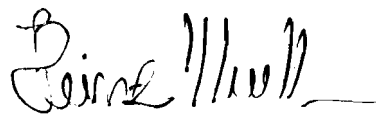
After review of the Draft SEIS, EPA has environmental concerns regarding the potential environmental impacts of locating an OLF at Site C. This site is in close proximity to the nationally-significant Pocosin Lakes National Wildlife Refuge that provides sanctuary for hundreds of thousands of migratory waterfowl and recreation opportunities for more than 30,000 visitors annually. This Refuge has been designated as a globally significant bird sanctuary that is important for bird conservation. The preferred alternative has the potential to negatively impact the wildlife and associated habitat in this area. An airfield location near a flyway and wildlife refuge that includes significant populations of migratory waterfowl and other endangered wildlife may not be compatible. We understand that the U.S. Fish and Wildlife Service (USFWS) will provide substantial comment on potential adverse impacts to wildlife and endangered species.

As you are aware, potential negative environmental impacts do not prohibit the selection of a site as a preferred alternative in an EIS, but those impacts must be carefully analyzed and fairly evaluated against all reasonable and practicable alternatives. Based on EPA's review, it appears that the Draft SEIS does not fully analyze and evaluate the environmental impacts for a range of reasonable alternatives. Because of significant environmental concerns and controversy associated with the preferred alternative, we recommend that the Navy reconsider other available alternatives. At a minimum, EPA suggests reevaluation of the six OLF alternatives from the original EIS, as well as any previously identified alternatives from the OLF screening study, such as Open Grounds Farm, to ensure that a proper site is selected and substantiated with sufficient, comparable site data. As part of this reevaluation, EPA also recommends updating the analysis due to the length of time that has passed since completion of the original EIS and screening process as well as data inconsistencies in the Draft SEIS.

We rate the preferred alternative as EC-2 (Environmental Concerns-with more information requested). Enclosed is a summary of definitions for EPA ratings, as well as more detailed comments relating to the sufficiency of the Draft SEIS. We have identified significant environmental impacts that should be avoided to adequately protect the environment. Corrective measures may require consideration of other project alternatives and appropriate mitigation. The requested additional information or analyses should be included in the Final SEIS to further explain the basis for selection of the preferred alternative.

We appreciate the opportunity to review the proposed action. Please contact Ben West of my staff at (404) 562-9643 if you have any questions or want to discuss our comments further.

Sincerely,



Heinz J. Mueller, Chief
NEPA Program Office
Office of Policy and Management

Enclosures

cc: U.S. Army Corps of Engineers – Wilmington District
U.S. Fish and Wildlife Service – Raleigh Office
North Carolina Department of Environment and Natural Resources

U.S. ENVIRONMENTAL PROTECTION AGENCY

ENVIRONMENTAL IMPACT STATEMENT (EIS) RATING SYSTEM CRITERIA

EPA has developed a set of criteria for rating Draft EISs. The rating system provides a basis upon which EPA makes recommendations to the lead agency for improving the draft.

RATING THE ENVIRONMENTAL IMPACT OF THE ACTION

- **LO (Lack of Objections):** The review has not identified any potential environmental impacts requiring substantive changes to the preferred alternative. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposed action.
- **EC (Environmental Concerns):** The review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact.
- **EO (Environmental Objections):** The review has identified significant environmental impacts that should be avoided in order to adequately protect the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). The basis for environmental objections can include situations:
 1. Where an action might violate or be inconsistent with achievement or maintenance of a national environmental standard;
 2. Where the Federal agency violates its own substantive environmental requirements that relate to EPA's areas of jurisdiction or expertise;
 3. Where there is a violation of an EPA policy declaration;
 4. Where there are no applicable standards or where applicable standards will not be violated but there is potential for significant environmental degradation that could be corrected by project modification or other feasible alternatives; or
 5. Where proceeding with the proposed action would set a precedent for future actions that collectively could result in significant environmental impacts.
- **EU (Environmentally Unsatisfactory):** The review has identified adverse environmental impacts that are of sufficient magnitude that EPA believes the proposed action must not proceed as proposed. The basis for an environmentally unsatisfactory determination consists of identification of environmentally objectionable impacts as defined above and one or more of the following conditions:
 1. The potential violation of or inconsistency with a national environmental standard is substantive and/or will occur on a long-term basis;
 2. There are no applicable standards but the severity, duration, or geographical scope of the impacts associated with the proposed action warrant special attention; or
 3. The potential environmental impacts resulting from the proposed action are of national importance because of the threat to national environmental resources or to environmental policies.

RATING THE ADEQUACY OF THE ENVIRONMENTAL IMPACT STATEMENT (EIS)

- **1 (Adequate):** The Draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.
- **2 (Insufficient Information):** The Draft EIS does not contain sufficient information to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the Draft EIS, which could reduce the environmental impacts of the proposal. The identified additional information, data, analyses, or discussion should be included in the Final EIS.
- **3 (Inadequate):** The Draft EIS does not adequately assess the potentially significant environmental impacts of the proposal, or the reviewer has identified new, reasonably available, alternatives, that are outside of the spectrum of alternatives analyzed in the Draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. The identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. This rating indicates EPA's belief that the Draft EIS does not meet the purposes of NEPA and/or the Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised Draft EIS.

**Draft Supplemental Environmental Impact Statement for the
Introduction of F/A-18 E/F (Super Hornet) Aircraft to the East Coast of the United States
(Construction and Operation of an Outlying Landing Field)**

SPECIFIC EPA REVIEW COMMENTS

Alternatives

EPA is concerned that the Draft SEIS is too narrowly focused and does not fully analyze and evaluate the environmental impacts for a range of reasonable alternatives. The Draft SEIS contains approaches to quantify impacts of the various alternatives where an analysis has been focused on one or two alternatives instead of all action alternatives. For example, baseline noise monitoring was only conducted at Sites C and D, with an assumption of applicability to other sites. Further wetlands characterization was conducted at all sites except Site A and included groundwater monitoring that varied widely between sites (e.g., no wells in Site C). Since the original approval occurred in 2003, some baseline data need updating across all alternatives to reflect current conditions. EPA recommends using updated census information from the 2000 U.S. Census (e.g., see comments below on Environmental Justice).

We suggest the Navy also consider a shift in the locations of the core areas within the entire footprint of the buffer area so as to minimize impacts to wetlands and impacts to communities. For example, opportunities may exist to shift the core area for Site B to the north or west to avoid impacts to potential jurisdictional wetlands and perhaps further minimize impacts to homes and surrounding communities. Similarly, an option may exist to shift the core area for Site E to the north or northwest to minimize impacts to potential jurisdictional wetlands. A reconfiguration of the airfield footprint may also reduce noise exposure and other impacts to nearby residents and wildlife. EPA recommends that the Final SEIS include a discussion of opportunities to conduct this additional type of impact minimization through shifts in the core area location and possible reconfiguration of the airfield footprint.

Wetlands/Water Quality Impacts

EPA evaluated the information presented in the Draft SEIS and reviewed the “OLF Wetlands Mapping Project” report. We are unable to draw substantive conclusions concerning wetland impacts for the five alternatives at this time due to problems with site data. This includes lack of: (1) consistent reporting; (2) onsite access; (3) monitoring data due to loss of wells; (4) comprehensive coverage of a large project area; and (5) information concerning the actual projected footprint of the impacts within the alternative area, quality and type of wetlands to be impacted, and whether the core area could be shifted to avoid impacts. In addition, there appear to be inconsistencies in the wetlands report versus the Draft SEIS regarding wetlands acreage for the OLF core areas (e.g., Site B – 467 acres vs. 515 acres and Site E – 807 acres vs. 902 acres). In addition, there are big differences in the description of jurisdictional waters for the preferred Site C (from 27,000 linear feet to 52,881 linear feet). These data problems should be explained or corrected in the Final SEIS.

The Draft SEIS contains no description of how the additional fieldwork was used to update the information that was included in the original EIS and how it affected the analysis of alternatives. For example, no additional work was done at Site A. How did the additional data sheets and groundwater monitoring well data lead to the current characterization of jurisdictional waters within the core areas? The Draft SEIS has very little information that describes the quality of wetlands that are found within the core areas for each alternative. For example, how much of Site E consists of jurisdictional loblolly pine stands versus the relict nonriverine swamp forest identified in the center of the site? We recommend the Navy qualitatively describe the functions and values of aquatic resources, including wetlands, which could be lost as a result of permit actions in the Final SEIS. The discussions for the alternatives contain information for both temporary and permanent wetland impacts, but there was no discussion as to what proposed activities would make the impacts temporary or permanent. EPA recommends the Final SEIS present more complete wetland characterization information, as described above, so the agencies and public will be able to more easily and confidently compare the alternatives.

Both NEPA and the Clean Water Act (CWA) require that indirect and secondary impacts be considered along with the direct impacts when evaluating the impacts of the project alternatives and determining the least environmentally damaging practicable alternative (LEDPA) [See 40 CFR 230.11(h) and 40 CFR 1508.8]. Because of these requirements and the waterfowl issues involved with several of the project alternatives, the potential secondary impacts of the proposed project should also be an important consideration when determining the LEDPA. We recommend the Navy consider potential secondary impacts resulting from the proximity of its preferred alternative (Site C) to the Pocosin Lakes National Wildlife Refuge, a special aquatic site under the 404(b)(1) Guidelines, along with the direct wetland impacts associated with other alternatives. Consideration should also be given to potential indirect effects to jurisdictional waters as a result of implementing the additional land use controls (e.g., vegetation management and controlling drainage) that would be used to minimize potential for bird-aircraft strikes. These impacts should be thoroughly described in the Final SEIS.

The Draft SEIS includes no discussion of the effects to water quality in the study area as a result of the proposed action. The additional airfield conceptual design that was conducted for the Draft SEIS predicts a much higher level of ground disturbance for the core area than was included in the original EIS. EPA has concerns about degradation of water quality in various waterways from sediment and other pollutants associated with construction of the airfield (e.g., runway, support buildings, access roads, storm drainage systems, and construction staging areas), and long-term operations (e.g., fuel spills). We recommend the Final SEIS analyze the potential for significant impacts to water quality from these activities. All appropriate steps should be taken to address potential impacts to water quality within streams and wetlands, including proper control of stormwater runoff during construction. Monitoring commitments should be included to ensure that water quality and in-stream habitat are fully protected and that stormwater controls are maintained to help ensure success. The Final SEIS should identify the Best Management Practices (BMPs) to be applied to attain appropriate reductions in sediment loads and any additional monitoring to verify pollutant reductions.

Unavoidable wetland impacts should preferably be mitigated within the same watershed to result in no net loss of aquatic functions, not just wetland acreage. EPA recommends careful consideration of onsite mitigation opportunities, such as the construction, enhancement or restoration of wetlands (or a wetland bank). Mitigation for project impacts should not serve to attract waterfowl and other wildlife to conflict with aircraft. Although we understand the final mitigation plans cannot be prepared until an alternative is selected and the project impacts are known, the Navy should consider mitigation needs for the different alternatives. We recommend that the Navy initiate early coordination with the U.S. Army Corps of Engineers (USACE), USFWS, and EPA and include conceptual mitigation plans for the preferred alternative in the Final SEIS.

Wildlife/Endangered Species Impacts

The Federal Aviation Administration, along with EPA, USFWS, USACE, and the U.S. Air Force recently finalized a regional Memorandum of Understanding (MOU) related to minimizing impacts from aircraft-wildlife strikes. The civil and military aviation communities widely recognize that the threat to human health and safety from aircraft collisions with aircraft-wildlife strikes is increasing. In light of the immense concentration of large, flocking birds in proximity to the preferred site, the bird-aircraft strike hazard (BASH) for Site C is “severe.” Standard BASH practices may not even be applicable here. However, as is described in the Regional MOU, if these or other habitats support wildlife hazardous to aircraft, and there is no practicable alternative location for the proposed aviation project, we suggest that the Navy develop mutually acceptable measures to protect aviation safety and mitigate any unavoidable wildlife impacts and wetlands. EPA recommends close coordination with all Regional MOU signatories, especially the USFWS and North Carolina Wildlife Resources Commission, to develop appropriate mitigation.

As part of its BASH reduction program, the Navy is proposing to control land use in the vicinity of the OLF sites by managing agricultural fields that attract migratory waterfowl. For several months of the year, thousands of birds depend on this surrounding habitat that includes large acreages of farmlands, woodlands, and lakes. EPA recommends that the Final SEIS should include a discussion of the extent to which such BASH measures (e.g., harassment techniques, lethal control methods, controlling drainage, and loss of adjacent feeding areas) could result in negative environmental impacts to waterfowl and waterfowl habitat as a result of implementation.

Since publication of the original EIS, new information on federal species of concern has become available on the bald eagle and the red wolf at Sites C and D. Based on information included in the Draft SEIS, it appears that construction and operation of the OLF at Sites C or D could adversely affect bald eagles and red wolves both on and off the Refuge lands. EPA recommends that the Final SEIS document the outcome of Endangered Species Act Section 7 consultation with the USFWS.

Noise

EPA has concerns about the significant increase in noise levels in the vicinity of the preferred OLF site and the long-term impacts of noise on waterfowl that utilize the nearby Pocosin Lakes National Wildlife Refuge. The noise response evaluation that was conducted at Site C involved a flight simulation of one jet performing an FCLP operation for six days at different times. EPA has concerns that this noise study conducted to evaluate waterfowl reactions was carried out in a manner fundamentally different than that of the multiple take-offs and landings which would actually occur. EPA recommends that the Final SEIS include a more representative simulation utilizing, at a minimum, a more representative training scenario. The Draft SEIS describes normal operations as "...FCLP training session involves four to five aircraft each performing eight to ten touch-and-go operations within a 45-minute period. On average, one to two training sessions would occur daily." This type of simulation over several, consecutive days should serve to better evaluate the response of wildlife to the proposed operations. In addition, the Draft SEIS in Table 4-12 identifies one housing unit within the 75 decibel or greater noise zone, with an estimated population of 154. We recommend the Navy further explain this large estimated population or correct the table in the Final SEIS.

The Navy reintroduced for all the alternatives the concept of buffering the OLF, based generally on the size of projected noise contours. This buffer would serve to mitigate noise exposure impacts and promote compatible land use surrounding the OLF. The acquisition of the buffer area would be accomplished through a combination of fee simple purchase and purchase of restrictive use easements. The specifics of the land acquisition strategy are not included in the Draft SEIS and are generally identified as based on what would be in the best interest of the Navy and the property owner. It is clear that the greatest noise exposure zone (Sector 1) will be mitigated through resident relocation. However, mitigation for Sectors 2 and 3 must still be determined. EPA recommends that any homes exposed to noise levels within the 65+ day-night average sound level (DNL) contours (Sectors 1 and 2) be acquired from willing seller residents to help mitigate such noise exposure.

Since the extent of potential land acquisition is not yet resolved, the range of potential impacts is broad and difficult for reviewers to assess because of the multiple possibilities and range of potential impacts. Given this uncertainty, EPA recommends that the Final SEIS generally identify what constitutes the best interest of the Navy and include a sample restrictive use easement to provide potentially affected landowners a better understanding of how their properties could be constrained in the future. Furthermore, EPA suggests that the Navy coordinate with affected residents that are not relocated through periodic outreach meetings and/or establishment of a "hotline" to report any noise complaints or other incidents. Also, periodic noise monitoring should also occur to determine any expansion ("creep") of the noise contours over time and possible incorporation of additional residences.

Environmental Justice

EPA is concerned that the Draft SEIS does not include any discussion of how the Navy

will deal with environmental justice issues as part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and/or low-income populations. The original EIS included a limited analysis of impacts to potential environmental justice communities by analyzing demographic and economic data by census tract within certain aircraft noise zones. In addition, the original EIS concluded that a number of low income and minority communities would experience disproportionately high and adverse effects as a result of the proposed action.

The original OLF Siting Study and EIS relied upon either broad-level 2000 U.S. Census data or 1990 U.S. Census data, since much of the detailed 2000 U.S. Census information was not available at the time of production. Some analysis in the Draft SEIS uses updated information (e.g., the noise analysis); however other sections are not updated to reflect this new information (e.g., environmental justice and other socioeconomics, including population and employment). Since the Navy revised the primary flight tracks for each alternative and conducted a revised noise analysis for the project, EPA recommends reevaluating the potential environmental impacts to low-income and minority communities using this new information as well as updated census information from the 2000 U.S. Census (block group and block-level data). EPA also recommends some additional field work to verify some conclusions using the census data. The field work should include an assessment of impacts (e.g., relocations) to identified residences within low-income and minority communities, instead of relying on percentages of census tracts or other mapping units. Ground-truthing should assist in quantifying the potential for disproportionate impacts to these communities.